



SEQUENCE LISTING

<110> E. I. du Pont de Nemours and Company

<120> Plant Viral Movement Protein Genes

<130> BB1344

<140>

<141>

<150> 60/128,092

<151> 1999-04-07

<160> 56

<170> Microsoft Office 97

<210> 1

<211> 450

<212> DNA

<213> Vitis sp.

<220>

<221> unsure

<222> (445)

<400> 1

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agtgttgcac caggaaaagg gtctgaccca gaatggaatg aacattttgt attcaccata 240
tctgaaggca tctcagaact caccattaaa ataatggaca gtgatagcgg tagtggtgat 300
gattttgtgg gagaagcaac cattccacta gaggcactct tcacggaagg aagcctggag 360
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ctcactttca ctcaaaaggg aaaangtgat                                     450
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<210> 2

<211> 130

<212> PRT

<213> Vitis sp.

<220>

<221> UNSURE

<222> (129)

<400> 2

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          20              25              30
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Cys Arg Thr Gln Glu Gln Lys Ser Ser Val Ala Ser Gly Lys Gly Ser
          35              40              45
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Asp Pro Glu Trp Asn Glu His Phe Val Phe Thr Ile Ser Glu Gly Ile
          50              55              60
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Ser Glu Leu Thr Ile Lys Ile Met Asp Ser Asp Ser Gly Ser Gly Asp
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Gly Asn Ile Pro Pro Thr Val Tyr Asn Val Val Lys Asp Glu Glu Tyr
 100 105 110

Arg Gly Glu Ile Lys Val Gly Leu Thr Phe Thr Pro Glu Asp Gln Gly
 115 120 125

Phe

<210> 5
 <211> 876
 <212> DNA
 <213> Zea mays

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 gaacaccgat tacctctgta acatggatcc gtatgcaatt ctcaagtgcc gttcacagga 180
 gcagaagagc agtattgcaa ctggaaaagg aactaccctt gagtggaatg aaaactttat 240
 cttcactgtg tctgaccgga caacagactt ggtaatacaag cttatggaca gtgatacagg 300
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 attcatgcgc ttggagcctt cagccgtcga gtacttcatt ctaatgcaga attcattcga 600
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 tccatattgc tctatatccc gtattggaaa ttctaaggcc gtttgtgatt actgcttaca 720
 acaagaagtt ttgctttctag ttcccactac gctttttttt gaagttttga gtggaacatc 780
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 <211> 143
 <212> PRT
 <213> Zea mays

<400> 6
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Glu Asn Thr Asp Tyr Leu Cys Asn Met Asp Pro Tyr Ala Ile Leu Lys
 20 25 30

Cys Arg Ser Gln Glu Gln Lys Ser Ser Ile Ala Thr Gly Lys Gly Thr
 35 40 45

Thr Pro Glu Trp Asn Glu Asn Phe Ile Phe Thr Val Ser Asp Arg Thr
 50 55 60

Thr Asp Leu Val Ile Lys Leu Met Asp Ser Asp Thr Gly Thr Ala Asp
 65 70 75 80

Asp Phe Val Gly Glu Ala Thr Ile Pro Leu Glu Ala Val Tyr Thr Glu
 85 90 95

Arg Ser Ile Pro Pro Thr Leu Tyr Asn Val Val Lys Gly Glu Lys Tyr
 100 105 110

Cys Gly Glu Ile Lys Val Gly Leu Thr Phe Thr Pro Glu Asp Thr Arg

115

120

125

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<210> 7
 <211> 771
 <212> DNA
 <213> Hevea brasiliensis

<220>
 <221> unsure
 <222> (671)

<220>
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<220>
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<220>
 <221> unsure
 <222> (767)

<220>
 <221> unsure
 <222> (769)

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 ttaagtcttt tctttttcgc tttttggatt caattctggt ccaaaaatgc ctctaggaac 180
 tggtgaagtc ctacttggtg gtgctaaggg tcttgaaaac actgattttc tcaatggcgt 240
 ggacccttat gtcgtcctcg cttgcogtac ccaggagcag aaaagcagtg ttgcttcagg 300
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 agcaaccatt ccccttgagc cattgttttt ggaaggaaac ctcccatcta cggcgtacaa 480
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 ggtagagatg gacaacgtcg gagtggatgg atacgatttt cggttataat attaaactagc 600
 atcttggtgt ggaaatggca aggactgctt ttggtttggg gatggcaaaa gagactccgt 660
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<210> 8
 <211> 140
 <212> PRT
 <213> Hevea brasiliensis

<400> 8
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20 25 30
Cys Arg Thr Gln Glu Gln Lys Ser Ser Val Ala Ser Gly Lys Gly Ser
35 40 45
Glu Pro Glu Trp Asn Glu Lys Phe Ser Phe Glu Val Ser Asp Gly Asp
50 55 60
Thr Glu Leu Thr Leu Lys Ile Met Asp Ser Asp Val Gly Ala Ala Asp
65 70 75 80
Asp Phe Val Gly Glu Ala Thr Ile Pro Leu Glu Pro Leu Phe Leu Glu
85 90 95
Gly Asn Leu Pro Ser Thr Ala Tyr Lys Val Val Lys Glu Gln Glu Tyr
100 105 110
Lys Gly Glu Ile Thr Val Gly Leu Thr Phe Thr Pro Glu Val Glu Met
115 120 125
Asp Asn Val Gly Val Asp Gly Tyr Asp Phe Arg Leu
130 135 140

<210> 9
<211> 874
<212> DNA
<213> Triticum aestivum

<400> 9
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ggctcggatc ggatctacag caattagtct cgaccttcag tcgtgcgcgc tgcctcatcag 120
catataattc ctgatcgagc gagcgggaga ggaaggcgag atcaggcccg gagagaagat 180
ggcgcagggg acgctggagg tgctgctcgt gggagccaag ggctcgcaga acaccgacta 240
cctctgcaac atggaccogt acgcggttct aaaatgcacc tcgcaggagc aaaagagcac 300
cgctgcctct ggaaagggaa gtgatcctga gtggaacgaa acctttgtgt tcaccgtctc 360
tgagaatgca actgagcttg tcatcaagct actggacagt gatgggtggca cggacgacga 420
cagcgttggt gaagcaacga tccatttga tggagtgtac actgaaggaa gcattcccacc 480
aactgtttac aatgttgtca aagacgaaga gtaccgtgga gaaatcaaaa ttggtctgac 540
gttcaactcg gaggaggctc gtgatcagga tcaacccgag gaaaactatg gtgggtggaa 600
ccaatcatct tgagaagaag caggtgcttt gctgaactat ggtgcgtgac aagtcgtgtg 660
ctagaactaa agcctatttt aattgttaaa gactgtatgt gtcgttgatt cctcaatta 720
tggaataagct acgaatctac ttattgattg gtatcgtttt ctaatattca aatttgtaat 780
aacagtgttc ccacttgta tgaagtatga gcctctttaa tgtcactaaa ctgagttgca 840
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 874

<210> 10
<211> 144
<212> PRT
<213> Triticum aestivum

<400> 10
Met Ala Gln Gly Thr Leu Glu Val Leu Leu Val Gly Ala Lys Gly Leu
1 5 10 15

Glu Asn Thr Asp Tyr Leu Cys Asn Met Asp Pro Tyr Ala Val Leu Lys
 20 25 30
 Cys Thr Ser Gln Glu Gln Lys Ser Thr Val Ala Ser Gly Lys Gly Ser
 35 40 45
 Asp Pro Glu Trp Asn Glu Thr Phe Val Phe Thr Val Ser Glu Asn Ala
 50 55 60
 Thr Glu Leu Val Ile Lys Leu Leu Asp Ser Asp Gly Gly Thr Asp Asp
 65 70 75 80
 Asp Ser Val Gly Glu Ala Thr Ile Pro Leu Asp Gly Val Tyr Thr Glu
 85 90 95
 Gly Ser Ile Pro Pro Thr Val Tyr Asn Val Val Lys Asp Glu Glu Tyr
 100 105 110
 Arg Gly Glu Ile Lys Ile Gly Leu Thr Phe Thr Pro Glu Glu Ala Arg
 115 120 125
 Asp Gln Asp Gln Pro Glu Glu Asn Tyr Gly Gly Trp Asn Gln Ser Ser
 130 135 140

<210> 11
 <211> 1482
 <212> DNA
 <213> Oryza sativa

<400> 11
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 acccgcgccc gtagccatcc atgtcgatac aaggccagat cctcgaagtc agagtcaactg 120
 ggtgcaggaa gctgagggac acggagttct tcaogcgcca ggatccctac gtctgcatcg 180
 agtatgccac caacaagttc cgcacccgca cctgcaccga tgggggaagg aacctactt 240
 ttgacgagaa gtttcataata cctctcattg aggggcttcg tgagctaacc gtcacagtgt 300
 ggaacagcaa cacgctcacc catgatgatt tcattggcaa tggcaggggtg cagctgcata 360
 aggtgcttac gcgtggctat gatgatgcct catggccct ccagacacgc catatgaggt 420
 ctgctgggga agtgacgctc attatgcatt ttgatgtttc agcaatgaag aacaagccgg 480
 gaaaaatttc tgcgcgctca accacacatt ctgttcttcc agtgccggta ccagcagtac 540
 catatgctgc cccctcacct tcatacgcac taccocctgc aggataccct gcagtaaccg 600
 catatcaatc ctatcctget agccatgtcc cggcgccata tctacttca gcataccac 660
 atccaccacc atctctgcta gctcgcatg ttgagcatgc ggcataccct cctacaagta 720
 caacatatcc tccacagccg taccaccac agccgcaggg acaaacatac ccacgcagc 780
 cgcagggaga aacataccaa ccgcagccgc agcgagaaac ataccacccg cagcctcaag 840
 tacaaccata cccaccaaag ccacagggac aaccataccc accgcagccg cagggacaac 900
 catatccacc gcaaccatat ggacaaactt acccaccacc tccaaaagga cagccacat 960
 atccacctgc gccctatcct tcaacttate caccagcacc atattgatat ggcacacttg 1020
 gtggactgaa gttgtccaca taaaaagca agtaagcaac aagtgatgat cagttcttat 1080
 atttatccag ggtatccagc ctcatcacc cagttaattg aaacaaatga aatcattcct 1140
 gaagcgattc atgtcaacat cttagcaacc aatggtagta gttaccatct ggtatgtatc 1200
 atatatcata gcttgacagaa tgtcaogaat ggaatttggt cgattatggt gtatgttttg 1260
 ggcttggtgt aacagtgatc caoctttggt ctgttttgag gtcattgttg gctgttctgt 1320
 gactgtaact actgcttttt acaaaggggg gaagcagtaa ttctagttct acctgcaact 1380
 gcctgataag tgttaactgt gaaaagttgc agtagcttgt cgactttgta ccatgttggt 1440
 tgagatgctc aataaatttg ctttgtacta aaaaaaaaaa aa 1482

<210> 12
 <211> 308
 <212> PRT
 <213> Oryza sativa

<400> 12

Met	Ser	Ile	Gln	Gly	Gln	Ile	Leu	Glu	Val	Arg	Val	Thr	Gly	Cys	Arg	1	5	10	15
Lys	Leu	Arg	Asp	Thr	Glu	Phe	Phe	Thr	Arg	Gln	Asp	Pro	Tyr	Val	Cys	20	25	30	
Ile	Glu	Tyr	Ala	Thr	Asn	Lys	Phe	Arg	Thr	Arg	Thr	Cys	Thr	Asp	Gly	35	40	45	
Gly	Arg	Asn	Pro	Thr	Phe	Asp	Glu	Lys	Phe	His	Ile	Pro	Leu	Ile	Glu	50	55	60	
Gly	Leu	Arg	Glu	Leu	Thr	Val	Thr	Val	Trp	Asn	Ser	Asn	Thr	Leu	Thr	65	70	75	80
His	Asp	Asp	Phe	Ile	Gly	Asn	Gly	Arg	Val	Gln	Leu	His	Lys	Val	Leu	85	90	95	
Thr	Arg	Gly	Tyr	Asp	Asp	Ala	Ser	Trp	Pro	Leu	Gln	Thr	Arg	His	Met	100	105	110	
Arg	Ser	Ala	Gly	Glu	Val	Thr	Leu	Ile	Met	His	Phe	Asp	Val	Ser	Ala	115	120	125	
Met	Lys	Asn	Lys	Pro	Gly	Lys	Ile	Ser	Ala	Ala	Ser	Thr	Thr	His	Ser	130	135	140	
Val	Leu	Pro	Val	Pro	Val	Pro	Ala	Val	Pro	Tyr	Ala	Ala	Pro	Ser	Pro	145	150	155	160
Ser	Tyr	Ala	Leu	Pro	Pro	Ala	Gly	Tyr	Pro	Ala	Val	Pro	Pro	Tyr	Gln	165	170	175	
Ser	Tyr	Pro	Ala	Ser	His	Val	Pro	Ala	Pro	Tyr	Pro	Thr	Ser	Ala	Tyr	180	185	190	
Pro	His	Pro	Pro	Pro	Ser	Leu	Leu	Ala	Arg	Asp	Val	Glu	His	Ala	Ala	195	200	205	
Tyr	Pro	Pro	Thr	Ser	Thr	Thr	Tyr	Pro	Pro	Gln	Pro	Tyr	Pro	Pro	Gln	210	215	220	
Pro	Gln	Gly	Gln	Thr	Tyr	Pro	Pro	Gln	Pro	Gln	Gly	Glu	Thr	Tyr	Gln	225	230	235	240
Pro	Gln	Pro	Gln	Arg	Glu	Thr	Tyr	Pro	Pro	Gln	Pro	Gln	Val	Gln	Pro	245	250	255	
Tyr	Pro	Pro	Lys	Pro	Gln	Gly	Gln	Pro	Tyr	Pro	Pro	Gln	Pro	Gln	Gly	260	265	270	
Gln	Pro	Tyr	Pro	Pro	Gln	Pro	Tyr	Gly	Gln	Thr	Tyr	Pro	Pro	Pro	Pro	275	280	285	
Lys	Gly	Gln	Pro	Thr	Tyr	Pro	Pro	Ala	Pro	Tyr	Pro	Ser	Thr	Tyr	Pro	290	295	300	

Pro Ala Pro Tyr
305

<210> 13
<211> 1172
<212> DNA
<213> Glycine max

<400> 13
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cttcctctct tcctctgact ccatgtctgc gataacgggc atccaggggc aacctcttga 120
ggttacggtg gtttctgtgt ccaagttgaa ggacacagaa tggatttcaa gacaagatcc 180
gtacgtttgt gttgagtatg gcagcacaaa gttccgaacc agaacctgca cagacggcgg 240
aaaaaaccgg gtattccaag agaagttcat ctttccctc attgaaggcc ttcgggagct 300
caatgtcctt gtttggaaaca gcaatactct caccttogac gattttatag gaagcggaaa 360
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cccaccacca ccatcacctc cctctgcaac tccttaccat acaactggat cttattctta 660
cccaccggcg ccgcacacct ctacagctta cctccctat tcctcacatt catctcccta 720
tccaccatca tcataccccc cacagccctc ctctgtatct cctcctctc ccccatcatc 780
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attaaagggc accatttttt ttttcgcaat tggatgttca ctgaccattt tccgggtttc 1080
ttttgtctcc gtaaggatga aatatctatg aatcgtttat cagggttgctc aaaaaaaaaa 1140
aaaaaaaaac aaaaaaaaaa aaaaaaaaaa aa 1172

<210> 14
<211> 258
<212> PRT
<213> Glycine max

<400> 14
Met Ser Ser Ile Thr Gly Ile Gln Gly Gln Pro Leu Glu Val Thr Val
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Val Ser Cys Ser Lys Leu Lys Asp Thr Glu Trp Ile Ser Arg Gln Asp
20 25 30
Pro Tyr Val Cys Val Glu Tyr Gly Ser Thr Lys Phe Arg Thr Arg Thr
35 40 45
Cys Thr Asp Gly Gly Lys Asn Pro Val Phe Gln Glu Lys Phe Ile Phe
50 55 60
Pro Leu Ile Glu Gly Leu Arg Glu Leu Asn Val Leu Val Trp Asn Ser
65 70 75 80
Asn Thr Leu Thr Phe Asp Asp Phe Ile Gly Ser Gly Lys Ile Gln Leu
85 90 95
His Lys Val Leu Ser Gln Gly Phe Asp Asp Ser Ala Trp Pro Leu Gln
100 105 110
Thr Lys Thr Gly Arg Tyr Ala Gly Glu Val Lys Val Ile Leu His Tyr
115 120 125

Ala Ile Ala Asn Gln Arg His Lys Leu Val Ser Gly His Ala Pro Ser
130 135 140

Ala Pro Pro Tyr Val Ala Thr Ala Thr Pro Pro Val Pro Ser Ser Tyr
145 150 155 160

Ser Thr Ser Tyr Pro Pro Pro Pro Ser Ala Thr Ser Tyr Pro Pro Pro
165 170 175

Pro Ser Pro Pro Ser Ala Thr Pro Tyr His Thr Thr Gly Ser Tyr Ser
180 185 190

Tyr Pro Pro Pro Pro Pro Pro Pro Pro Thr Ala Tyr Pro Pro Tyr Ser Ser
195 200 205

His Ser Ser Pro Tyr Pro Pro Pro Ser Ser Tyr Pro Pro Gln Pro Ser Ser
210 215 220

Tyr Pro Pro Pro Pro Pro Pro Pro Ser Ser Tyr Pro Pro Ala Ser Ala Tyr
225 230 235 240

Pro Tyr Pro Pro Pro Ala Gly Tyr Pro Ser Gly Ile Tyr Pro Pro Pro
245 250 255

Pro Tyr

<210> 15
<211> 757
<212> DNA
<213> Zea mays

<400> 15
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cgccacctgg aggagaggac agcgcgccag ggagggggag gaggaagaag aacatgggga 120
agggcgtcct gaagggtcac ctcgctcgac ccaaggggct ctccggcaac gatttcttag 180
ggaagctgga cccctacgtg atcatgcagt accggagcca ggagcgcgaag agcagcgtcg 240
cccagacca aggaaggaac ccgtgctgga acgaggtggt caagttccag atcaactcgg 300
ccgcggccaa cgtgcagcac aagctcatcc tccggatcat ggaccacgac aacttctcca 360
gcgacgactt cctcggcgag gcgacgatcg acgtgacgga catcgtcagc ctgggcgcgcg 420
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accacggcga gatcaaggtc gccatcacct tcacctccac ccagacccag gttcaggaag 540
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cgtggactct ctcaagttct ttggttgctt ggtggtggtt cgggttggtat gtagtttttg 660
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aaccacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaag 757

<210> 16
<211> 157
<212> PRT
<213> Zea mays

<400> 16
Met Gly Lys Gly Val Leu Lys Val His Leu Val Asp Ala Lys Gly Leu
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Ser Gly Asn Asp Phe Leu Gly Lys Leu Asp Pro Tyr Val Ile Met Gln
20 25 30

Tyr Arg Ser Gln Glu Arg Lys Ser Ser Val Ala Arg Asp Gln Gly Arg
 35 40 45
 Asn Pro Cys Trp Asn Glu Val Phe Lys Phe Gln Ile Asn Ser Ala Ala
 50 55 60
 Ala Asn Val Gln His Lys Leu Ile Leu Arg Ile Met Asp His Asp Asn
 65 70 75 80
 Phe Ser Ser Asp Asp Phe Leu Gly Glu Ala Thr Ile Asp Val Thr Asp
 85 90 95
 Ile Val Ser Leu Gly Ala Glu Arg Gly Thr Tyr His Leu Asn Ala Ala
 100 105 110
 Lys His Asn Val Val Leu Ala Asp Lys Thr Tyr His Gly Glu Ile Lys
 115 120 125
 Val Ala Ile Thr Phe Thr Ser Thr Gln Thr Gln Val Gln Glu Asp Gly
 130 135 140
 Gly Ala Ile Gly Gly Trp Arg His Ser Ser Phe Asn Gln
 145 150 155

<210> 17
 <211> 422
 <212> DNA
 <213> Hevea brasiliensis

<220>
 <221> unsure
 <222> (410)

<220>
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 <222> (415)

<400> 17
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 ctgggctatt ggaagtgcag ctggtgaatg caaaaggcct cagaggcact gatttcottag 180
 gtaagattga tccatatgtt atcgtgaagt acaaaaacca agagcgcgag agcagtgtcg 240
 ccagaggtca aggtgggaat ccagtgtgga atgagaaact cacattcaag gtggaatatc 300
 cagggcaagg tgaagagtac aagctcattt taaaaatcat ggacaaggac accttctctg 360
 ctgatgattt gcttgggcca tgctacgata tatgtgaagg atttggtggn attangaatg 420
 ga 422

<210> 18
 <211> 102
 <212> PRT
 <213> Hevea brasiliensis

<220>
 <221> UNSURE
 <222> (99)

<220>
 <221> UNSURE
 <222> (101)

<400> 18
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Arg Gly Thr Asp Phe Leu Gly Lys Ile Asp Pro Tyr Val Ile Val Lys
20 25 30
Tyr Lys Asn Gln Glu Arg Glu Ser Ser Val Ala Arg Gly Gln Gly Gly
35 40 45
Asn Pro Val Trp Asn Glu Lys Leu Thr Phe Lys Val Glu Tyr Pro Gly
50 55 60
Gln Gly Glu Glu Tyr Lys Leu Ile Leu Lys Ile Met Asp Lys Asp Thr
65 70 75 80
Phe Ser Ala Asp Asp Leu Leu Gly His Ala Thr Ile Tyr Val Lys Asp
85 90 95
Leu Leu Xaa Leu Xaa Met
100

<210> 19
<211> 486
<212> DNA
<213> Glycine max

<220>
<221> unsure
<222> (430)

<220>
<221> unsure
<222> (464)

<220>
<221> unsure
<222> (486)

<400> 19
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acaaaggcca agagaagagg agtgggtgtcg ctaatggcaa aggcaaaaat ccggtatgga 180
atgagaaatt tatcttcaaa gtagaatatc ctggatcaag caatcaacac aagctcatoc 240
tcaaaattat ggataaagac ttatatacag acgacttcgt cggagaagca ataatccatg 300
taggggattt attggcccaa ggagtagaga acggaggagc caaattacag actctcaagt 360
atagagtggg tcgtgctaac aagtcttatt gtgggtgaaat tgatgttggg tgttactttt 420
accccgaan gtgggaagac aaattttgtg ggaagaagac atangaggat ggaaaagaaa 480
gtgacn 486

<210> 20
<211> 154
<212> PRT
<213> Glycine max

<220>
<221> UNSURE
<222> (136)

<220>
 <221> UNSURE
 <222> (147)

 <400> 20
 Met Ala Ile Gly Phe Met Glu Val Gln Leu Val Lys Ala Lys Gly Leu
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 Tyr Lys Gly Gln Glu Lys Arg Ser Gly Val Ala Asn Gly Lys Gly Lys
 35 40 45
 Asn Pro Val Trp Asn Glu Lys Phe Ile Phe Lys Val Glu Tyr Pro Gly
 50 55 60
 Ser Ser Asn Gln His Lys Leu Ile Leu Lys Ile Met Asp Lys Asp Leu
 65 70 75 80
 Tyr Thr Asp Asp Phe Val Gly Glu Ala Ile Ile His Val Gly Asp Leu
 85 90 95
 Leu Ala Gln Gly Val Glu Asn Gly Gly Ala Lys Leu Gln Thr Leu Lys
 100 105 110
 Tyr Arg Val Val Arg Ala Asn Lys Ser Tyr Cys Gly Glu Ile Asp Val
 115 120 125
 Gly Cys Tyr Phe Tyr Pro Glu Xaa Trp Glu Asp Lys Phe Cys Gly Lys
 130 135 140
 Lys Thr Xaa Glu Asp Gly Lys Glu Ser Asp
 145 150

<210> 21
 <211> 862
 <212> DNA
 <213> Glycine max

<400> 21
 ttattagaca ttaaattgta agaattttgc tgacttgtaa gcttcagaga cgaagacaca 60
 cggtttagagt gagaaagaga tggcaattgg gttcatggag gtgcagcttg tgaaagcaaa 120
 ggagttgtgt gacactgatt tctttggtag tatggaccg tatgttggtga tacaatacaa 180
 cggccaagag caaaggagta gtgttgctaa gggacagggc aataatccgg tatggaatga 240
 gaaatttggtg ttcaaggtag aatatactac actgagtaat tcatacaaga ttatcttaaa 300
 aatcatggac aaggatcttt tatctgcaga tgactttggt ggtcaagcca tagtctatgt 360
 ggaagattta ttagccatag gggtagagga tggtagcggt gagctacaac ctctaaagta 420
 cagagtaatt cgtgcagatc aatcttattg tggagaaatt gatotttggt taacttttaa 480
 ggtggaagaa gagttcaatg gagaagctaa acgaggatcg aaggacagta aatagtattt 540
 gcaatagcag ttggccaaca tgaatatcaa ttgatttcaa tggagatttt ggaatcatca 600
 tcatgtagtt agtttcatct ttttagttgt atatgatcct tttggaaagt aggatcaatg 660
 catagataaa tttactaaat tttatgccat caaattagta atagtatgca ttattaatct 720
 tctaatttat cttcaccata attaatctca ttgatgattc aatcttgtag ttcttaaca 780
 tctatatact atatgggttt gaacctttta aaaaaaagaa aaaaaaaaaa aaaaaaaaaa 840
 aaaaaaaaaa aaaaaaaaaa aa 862

<210> 22
 <211> 151

<212> PRT
 <213> Glycine max

<400> 22
 Met Ala Ile Gly Phe Met Glu Val Gln Leu Val Lys Ala Lys Glu Leu
 1 5 10 15
 Cys Asp Thr Asp Phe Phe Gly Ser Met Asp Pro Tyr Val Val Ile Gln
 20 25 30
 Tyr Asn Gly Gln Glu Gln Arg Ser Ser Val Ala Lys Gly Gln Gly Asn
 35 40 45
 Asn Pro Val Trp Asn Glu Lys Phe Val Phe Lys Val Glu Tyr Pro Thr
 50 55 60
 Leu Ser Asn Ser Tyr Lys Ile Ile Leu Lys Ile Met Asp Lys Asp Leu
 65 70 75 80
 Leu Ser Ala Asp Asp Phe Val Gly Gln Ala Ile Val Tyr Val Glu Asp
 85 90 95
 Leu Leu Ala Ile Gly Val Glu Asp Gly Ala Ala Glu Leu Gln Pro Leu
 100 105 110
 Lys Tyr Arg Val Ile Arg Ala Asp Gln Ser Tyr Cys Gly Glu Ile Asp
 115 120 125
 Leu Gly Ile Thr Phe Lys Val Glu Glu Glu Phe Asn Gly Glu Ala Lys
 130 135 140
 Arg Gly Ser Lys Asp Ser Lys
 145 150

<210> 23
 <211> 860
 <212> DNA
 <213> Triticum aestivum

<400> 23
 tccaaacgcg acctcatcag agcaagaccc ggaggaaaca aggagaggcc agagcggcct 60
 gtcacaaggc aaaggacaga ggagggtgctt gttcaggtct cctgctagat cggaggcgga 120
 tgggcagggg cgtgctggag gtgcatctcg tcgacgccaa gggcctcttc ggcagcgatt 180
 tcctagggaa gatcgaccg tatgtaatcg tgcaataccg gagccaggag cgcaagagca 240
 gcacctccag agatgagggg aggaaccgga gctggaacga ggtgttcggg ttccagatca 300
 actcctctgc ggccaacggg cagcacaagc tcttctctcg gatcatggac cagcacaact 360
 tctccagcga cgacttcttc ggccaagcga cgatcaacgt gaccgatctg atcagcaccg 420
 gcatggagag cggcgcgctc cagctgaacg cggcaaagta cagcgttgtg tccgctgata 480
 actcatacca cggcgagatc agagtagggc tcacgttcac cgccaccaag gttgaagaag 540
 acggagggca ggtcggaggc tggacgcaca gctctcgca gtagagcatg taacgtcctt 600
 gcccttcgct cgtagcttta gtgttgatg ctatgatgtc cgtgactgaa tgatgtgatt 660
 ccaagtgtat gtacgttgca cctgtagtag ctttttagaa gatgtatatg tactagtagc 720
 cagaagtcag aactcgtagc aggctagagg cgtcaattcc gtttaattaat tgtcgatttg 780
 tggttcttat tttaggggga attgtgattc tggatgcgaa caccaaaaaa aaaaaaaaaa 840
 aaaaaaaaaa aaaaaaaaaa 860

<210> 24
 <211> 154
 <212> PRT
 <213> Triticum aestivum

<400> 24
Met Gly Arg Gly Val Leu Glu Val His Leu Val Asp Ala Lys Gly Leu
1 5 10 15
Phe Gly Ser Asp Phe Leu Gly Lys Ile Asp Pro Tyr Val Ile Val Gln
20 25 30
Tyr Arg Ser Gln Glu Arg Lys Ser Ser Thr Ser Arg Asp Glu Gly Arg
35 40 45
Asn Pro Ser Trp Asn Glu Val Phe Arg Phe Gln Ile Asn Ser Ser Ala
50 55 60
Ala Asn Gly Gln His Lys Leu Phe Leu Arg Ile Met Asp His Asp Asn
65 70 75 80
Phe Ser Ser Asp Asp Phe Leu Gly Gln Ala Thr Ile Asn Val Thr Asp
85 90 95
Leu Ile Ser Thr Gly Met Glu Ser Gly Ala Ser Gln Leu Asn Ala Ala
100 105 110
Lys Tyr Ser Val Val Ser Ala Asp Asn Ser Tyr His Gly Glu Ile Arg
115 120 125
Val Gly Leu Thr Phe Thr Ala Thr Lys Val Glu Glu Asp Gly Gly Gln
130 135 140
Val Gly Gly Trp Thr His Ser Ser Arg Glu
145 150

<210> 25
<211> 914
<212> DNA
<213> Oryza sativa

<400> 25
cttttggaag aaaagatcac ccaaaaccct atattccata gttgagacac aagatttttt 60
gaagccaagt ttgcgcattha catcaaaggg ttcttttgat gogaccaatg ctgtgaagag 120
tgtaactagc agtatctcta gcgcttcagg gaagcatgtc gctgacgata caagagaatt 180
tggttgagag ctgaacatta cagtggtaag aggtattcag ttggccgtca gagacatgct 240
aacgagcgat ccataatgttg ttctaactt tggggagcag aaagctcaaa ccactgttaa 300
accgagtgcac ttgaaccacg tatggaatga ggtgcttaag atatcaattc ctcgaaatta 360
tggaacctct aaacttgaag tatacgacca tgatacgttc tctgctgatg atatcatggg 420
ggaagcggag atagatcttc aaccaatgat cacagccgtc atggcctttg gagatccctc 480
gcgtgttggt gacatgcaaa ttggaaggtg gttcatgacc aaagacaatg ccctggtgaa 540
agatagcact gtcaatgttg tgcgggcaa ggtaaaacag gaagtgcacc taaagttgca 600
gaatgtagaa tcaggtgaga tggagttaga actggaatgg gttccaatac cctagattaa 660
taaagctcga ttggttctct gccaaaaaaa attactcaag aagcgtcagt tttgtaattt 720
aatgaatgg cttcaaattc cgtgtactta ctgaatctct gtcttcaaca ttttggccac 780
ccgaacgaaa ttcgtaaaaa tgccattgta aaatatcatg ttgtaatccg tcggctgcac 840
tcacgaccaa ttatattatt ctttagtgaa gtgtgctttc aaccggtgt cataaaaaaa 900
aaaaaaaaaaaa aaaa 914

<210> 26
<211> 217
<212> PRT
<213> Oryza sativa

<400> 26

Phe Trp Lys Lys Arg Ser Pro Lys Thr Leu Tyr Ser Ile Val Glu Thr
1 5 10 15

Gln Asp Phe Leu Lys Pro Ser Leu Arg Ile Thr Ser Lys Gly Ser Phe
20 25 30

Asp Ala Thr Asn Ala Val Lys Ser Val Thr Ser Ser Ile Ser Ser Ala
35 40 45

Ser Gly Lys His Val Ala Asp Asp Thr Arg Glu Phe Val Gly Glu Leu
50 55 60

Asn Ile Thr Val Val Arg Gly Ile Gln Leu Ala Val Arg Asp Met Leu
65 70 75 80

Thr Ser Asp Pro Tyr Val Val Leu Thr Leu Gly Glu Gln Lys Ala Gln
85 90 95

Thr Thr Val Lys Pro Ser Asp Leu Asn Pro Val Trp Asn Glu Val Leu
100 105 110

Lys Ile Ser Ile Pro Arg Asn Tyr Gly Pro Leu Lys Leu Glu Val Tyr
115 120 125

Asp His Asp Thr Phe Ser Ala Asp Asp Ile Met Gly Glu Ala Glu Ile
130 135 140

Asp Leu Gln Pro Met Ile Thr Ala Val Met Ala Phe Gly Asp Pro Ser
145 150 155 160

Arg Val Gly Asp Met Gln Ile Gly Arg Trp Phe Met Thr Lys Asp Asn
165 170 175

Ala Leu Val Lys Asp Ser Thr Val Asn Val Val Ser Gly Lys Val Lys
180 185 190

Gln Glu Val His Leu Lys Leu Gln Asn Val Glu Ser Gly Glu Met Glu
195 200 205

Leu Glu Leu Glu Trp Val Pro Ile Pro
210 215

<210> 27

<211> 770

<212> DNA

<213> Oryza sativa

<400> 27

ccacgcgtcc ggcctgtgca acatcatcat caagaagaag aagagatcaa cggcaagaag 60
actagcgact agcgagagat cgatcgaaga gaagaggaga gatggtgcac gggaaagtgg 120
aggctcctcct cgtctgcgcc aagggcctcg aggacactga cttcttgaac gacatggacc 180
cctacgtgat cctcacctgc cgcactcagg agcagaaaag cagcgttgca aaaggagcag 240
gaagcgagcc tgaatggaac gagaccttcg tcttcaccgt ctccgacgat gttccacagc 300
tcaatgtcaa gatcatggac agtcatgcct tctcagctga cgatttcgtc ggtgaagcaa 360
acattcctct ggagcctgtg ttcttggaag gcagccttcc tccagccgtc caccgtgtcg 420
tcaaggagga gaagtactgt ggagagatca aggttgctct caccttcaact ccagcagcgg 480
aaactcgcca tcatcacaac caccgagaac agggggaggg ttacagcagc tggaaactgat 540
tgctgtctac taatgagcat caacgagagg agatcttgtc tcaagaatta atgtgcttgt 600
caacaatact ccgtgctatg atgtcctaag aactgaaaca tccatttata tgtatatccc 660

agaccattga cttgctctgc ctaaattttg tatatattttt actacaaaga tgtgatgggtg 720
 tgaaatccag aatatttttta tcgaaaaaaa aaaaaaaaaa aaaaaaaaag 770

<210> 28
 <211> 145
 <212> PRT
 <213> Oryza sativa

<400> 28
 Met Val His Gly Lys Leu Glu Val Leu Leu Val Cys Ala Lys Gly Leu
 1 5 10 15
 Glu Asp Thr Asp Phe Leu Asn Asp Met Asp Pro Tyr Val Ile Leu Thr
 20 25 30
 Cys Arg Thr Gln Glu Gln Lys Ser Ser Val Ala Lys Gly Ala Gly Ser
 35 40 45
 Glu Pro Glu Trp Asn Glu Thr Phe Val Phe Thr Val Ser Asp Asp Val
 50 55 60
 Pro Gln Leu Asn Val Lys Ile Met Asp Ser Asp Ala Phe Ser Ala Asp
 65 70 75 80
 Asp Phe Val Gly Glu Ala Asn Ile Pro Leu Glu Pro Val Phe Leu Glu
 85 90 95
 Gly Ser Leu Pro Pro Ala Val His Arg Val Val Lys Glu Glu Lys Tyr
 100 105 110
 Cys Gly Glu Ile Lys Val Ala Leu Thr Phe Thr Pro Ala Ala Glu Thr
 115 120 125
 Arg His His His Asn His Glu Asn Glu Gly Glu Gly Tyr Ser Ser Trp
 130 135 140

Asn
 145

<210> 29
 <211> 958
 <212> DNA
 <213> Glycine max

<400> 29
 gcacagaaag aaaaaagttg gatccagcca aattccagct ccaattttgta actcaactgct 60
 tcaggcattt ctggcacaat tttttccacc tttattttcaa ctttaagact ccacagaaag 120
 aagcatattc ctgagtcaaa tagttctgtc catatagaat ttgtgaagtg agagtccaac 180
 ctttcatttt caattttcaa agatgcctcg tggaacactt gaagttgttc tgatcagcgc 240
 caaaggaatc gatgacaatg attttctctc cagcatagat ccttatgtga ttctcacata 300
 cagggcacag gagaaaaaga gcaactgtgca agaagatgct ggatccaagc cacaatggaa 360
 tgagagcttt cttttcactg tctctgacag tgcttctgaa cttaatctga agataatgga 420
 taaagacaac tttagtcaag atgattgtct tggcgaggca accattcatt tagatccagt 480
 gtttgaagcc ggtagcattc cagaaactgc ttacaagggt gtgaaggacg aagaatattg 540
 tgggtgagatt aagggtggctc tcactttcac tgctgagaga aatgaggagc agggttatga 600
 tgcacctgaa gagagctatg gtggatggaa agaatccagt ggggaatatt aaagtgaag 660
 aagaatttac atacttcaat ggccagactt acctttataa tgaaaaataa gcagttttgg 720
 tgtcactctt aggcaatttc cattattgtg ttttctggtg tgaagatcca atagtgttgt 780
 gcttttaggt tgcattcctc cctttggata ttaaagtaca ttatgcttga tatattatct 840

tttatgcatc agttaaacat tagaagagca gtgctatattt atttaaaaaa aaaaaaaaaa 900
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 958

<210> 30
 <211> 149
 <212> PRT
 <213> Glycine max

<400> 30
 Met Pro Arg Gly Thr Leu Glu Val Val Leu Ile Ser Ala Lys Gly Ile
 1 5 10 15
 Asp Asp Asn Asp Phe Leu Ser Ser Ile Asp Pro Tyr Val Ile Leu Thr
 20 25 30
 Tyr Arg Ala Gln Glu Lys Lys Ser Thr Val Gln Glu Asp Ala Gly Ser
 35 40 45
 Lys Pro Gln Trp Asn Glu Ser Phe Leu Phe Thr Val Ser Asp Ser Ala
 50 55 60
 Ser Glu Leu Asn Leu Lys Ile Met Asp Lys Asp Asn Phe Ser Gln Asp
 65 70 75 80
 Asp Cys Leu Gly Glu Ala Thr Ile His Leu Asp Pro Val Phe Glu Ala
 85 90 95
 Gly Ser Ile Pro Glu Thr Ala Tyr Lys Val Val Lys Asp Glu Glu Tyr
 100 105 110
 Cys Gly Glu Ile Lys Val Ala Leu Thr Phe Thr Ala Glu Arg Asn Glu
 115 120 125
 Glu Gln Gly Tyr Asp Ala Pro Glu Glu Ser Tyr Gly Gly Trp Lys Glu
 130 135 140
 Ser Ser Gly Glu Tyr
 145

<210> 31
 <211> 695
 <212> DNA
 <213> Triticum aestivum

<400> 31
 gcacgaggag agatccaaga ctaggccggc cggccggagg agatcgagaa ggaggaggag 60
 acatggtgcg cgggaagctg gaggtgctgc tegtctccgc caagggcctc gacgactccg 120
 atttcttcaa tagcatggac ccgtacgtga tcttcacctg ccgcagccac gagcagaaga 180
 gcaccgtcgc atcaggagca gggagcgagc ctgagtggaa cgagaccttc gtcttcgccc 240
 tctccggcga cgctccggag ctacgggtca agatcatgga cagcgacgcc ctctcggccg 300
 acgacctcgt cggagaagca tgtatcccgc tggaggctgt gctccaggag ggcagcctgc 360
 cgccggccgt gcaccgggtc gtcaaggacg aggagtagcg cggggagatc aagatcgccg 420
 tcaccttcac cccggcagag gaaaacgagg aggaggagga gagctacggc ggctggaatc 480
 agtccacctg aaaaaggcca gcgagccagc aagatggtgc tgtatgtctg actgtcataa 540
 tggatagaaa ggcttttgat atccttgatg tgtgtgacag acagggcatt caggaaaacg 600
 agtaaaaata ggggaaatat gtatcgatgc atgcatgaag tactaatcaa gcaattcacc 660
 gcatcgtttt gtattgcaaa aaaaaaaaaa aaaaaa 695

<210> 32
 <211> 142

<212> PRT
 <213> Triticum aestivum

<400> 32
 Met Val Arg Gly Lys Leu Glu Val Leu Leu Val Ser Ala Lys Gly Leu
 1 5 10 15
 Asp Asp Ser Asp Phe Phe Asn Ser Met Asp Pro Tyr Val Ile Leu Thr
 20 25 30
 Cys Arg Ser His Glu Gln Lys Ser Thr Val Ala Ser Gly Ala Gly Ser
 35 40 45
 Glu Pro Glu Trp Asn Glu Thr Phe Val Phe Ala Val Ser Gly Asp Ala
 50 55 60
 Pro Glu Leu Arg Val Lys Ile Met Asp Ser Asp Ala Leu Ser Ala Asp
 65 70 75 80
 Asp Leu Val Gly Glu Ala Cys Ile Pro Leu Glu Ala Val Leu Gln Glu
 85 90 95
 Gly Ser Leu Pro Pro Ala Val His Arg Val Val Lys Asp Glu Glu Tyr
 100 105 110
 Arg Gly Glu Ile Lys Ile Ala Leu Thr Phe Thr Pro Ala Glu Glu Asn
 115 120 125
 Glu Glu Glu Glu Glu Ser Tyr Gly Gly Trp Asn Gln Ser Thr
 130 135 140

<210> 33
 <211> 617
 <212> DNA
 <213> Zea mays

<220>
 <221> unsure
 <222> (421)

<400> 33
 cacgccgcct ccatgtgggt ggggaggcaa acgcgttcgt ccatctctga aactcaaacg 60
 ccttgatttg gagcatacta caggagtact tctgtacaaa tataaatacc cctggcgagt 120
 tgggttgggt ctatctcgca atcgaggcgt ttttttctg ctctgtaagt tcgtggtoga 180
 tccagcgagc gagcgagcag accggcggcc aaccgcggag ggagagatgg cgcaggggac 240
 gctggagggt cttctcgctg gagccagggg cctcgagaac accgattacc tgagcaacat 300
 ggacccttac gcgcttctgc aatgtcgctc ccacgagcag aagagcagcg tcgcatctgg 360
 caaaggctgt gaacctgagt ggaacgagac ctctgtgttc accgtctcca acggcgacac 420
 ngagctgttc atcaagctcc tggacagtga cgggtggcact gatgacgatt ttgttggtga 480
 agcaacgatt cctctggaag ccagttttaca cggaaggaa gcattccttc cgactgttta 540
 caatgttgtg aaagacgaag aataccgcgg agaaatcaaa gttggcctca cgttcaactcc 600
 agaggtaaac catctca 617

<210> 34
 <211> 202
 <212> PRT
 <213> Zea mays

<220>
 <221> UNSURE
 <222> (140)

 <400> 34
 Thr Pro Pro Pro Cys Gly Trp Gly Gly Lys Arg Val Arg Pro Ser Leu
 1 5 10 15
 Lys Leu Lys Arg Leu Val Leu Glu His Thr Thr Gly Val Leu Leu Tyr
 20 25 30
 Lys Tyr Lys Tyr Pro Trp Arg Val Gly Leu Gly Leu Ser Arg Asn Arg
 35 40 45
 Gly Val Phe Phe Leu Leu Arg Lys Phe Val Val Asp Pro Ala Ser Glu
 50 55 60
 Arg Ala Asp Arg Arg Pro Thr Ala Glu Gly Glu Met Ala Gln Gly Thr
 65 70 75 80
 Leu Glu Val Leu Leu Val Gly Ala Arg Gly Leu Glu Asn Thr Asp Tyr
 85 90 95
 Leu Ser Asn Met Asp Pro Tyr Ala Leu Leu Gln Cys Arg Ser His Glu
 100 105 110
 Gln Lys Ser Ser Val Ala Ser Gly Lys Gly Cys Glu Pro Glu Trp Asn
 115 120 125
 Glu Thr Phe Val Phe Thr Val Ser Asn Gly Ala Xaa Glu Leu Phe Ile
 130 135 140
 Lys Leu Leu Asp Ser Asp Gly Gly Thr Asp Asp Asp Phe Val Gly Glu
 145 150 155 160
 Ala Thr Ile Pro Leu Glu Ala Ser Leu His Gly Lys Glu Ala Phe Leu
 165 170 175
 Pro Thr Val Tyr Asn Val Val Lys Asp Glu Glu Tyr Arg Gly Glu Ile
 180 185 190
 Lys Val Gly Leu Thr Phe Thr Pro Glu Val
 195 200

<210> 35
 <211> 544
 <212> DNA
 <213> Zea mays

<220>
 <221> unsure
 <222> (415)

<220>
 <221> unsure
 <222> (478)

<220>
 <221> unsure
 <222> (494)

<220>
 <221> unsure
 <222> (509)

<220>
 <221> unsure
 <222> (515)

<220>
 <221> unsure
 <222> (531)..(532)

<220>
 <221> unsure
 <222> (542)

<400> 35
 gttcgtttcac gccacaggca aggcacaggg gcttgtgagg gagagcgagg agcggaggag 60
 gacatgggtgc acgggacgct ggaagtgtctg ctogttgggg ccaagggcct cgagaacacc 120
 gattacctct gtaacatgga tccgtatgca attctcaagt gccgttcaca ggagcagaag 180
 agcagtattg caactggaaa aggaactacc cctgagtgga atgaaaactt tatcttcact 240
 gtgtctgacc ggacaacaga cttggtaatc aagcttatgg acagtgatac aggcacagca 300
 gatgactttg ttggtgaagc aacgattcca ttggaagcag tgtatactga aaggagcatt 360
 ccaccaacac tctataatgt tgtgaaagggt gaaaaatact gcgggggaaat caaantgggc 420
 tcacattcac tcttgaggat actcgcaagc ggggtctccaa aggacttcgt ggtggaanca 480
 tcattcttaag ctantcttta gggtcacana cacancacaa tcatcgcttg nncctcaccg 540
 tnat 544

<210> 36
 <211> 130
 <212> PRT
 <213> Zea mays

<220>
 <221> UNSURE
 <222> (118)

<400> 36
 Met Val His Gly Thr Leu Glu Val Leu Leu Val Gly Ala Lys Gly Leu
 1 5 10 15
 Glu Asn Thr Asp Tyr Leu Cys Asn Met Asp Pro Tyr Ala Ile Leu Lys
 20 25 30
 Cys Arg Ser Gln Glu Gln Lys Ser Ser Ile Ala Thr Gly Lys Gly Thr
 35 40 45
 Thr Pro Glu Trp Asn Glu Asn Phe Ile Phe Thr Val Ser Asp Arg Thr
 50 55 60
 Thr Asp Leu Val Ile Lys Leu Met Asp Ser Asp Thr Gly Thr Ala Asp
 65 70 75 80
 Asp Phe Val Gly Glu Ala Thr Ile Pro Leu Glu Ala Val Tyr Thr Glu
 85 90 95
 Arg Ser Ile Pro Pro Thr Leu Tyr Asn Val Val Lys Gly Glu Lys Tyr
 100 105 110

Cys Gly Glu Ile Lys Xaa Gly Leu Thr Phe Thr Pro Glu Asp Thr Arg
 115 120 125

Lys Arg
 130

<210> 37
 <211> 459
 <212> DNA
 <213> Triticum aestivum

<220>
 <221> unsure
 <222> (435)

<400> 37
 gccgagcttt ccattttttca actcctagtc ctatacatatc agcgggaaccc cgggggctcgg 60
 atcggatcta cagcaattag tctcgacctt cagtcgtgcc gcctgctcat cagcatataa 120
 ttcttgatcg agcgaagcggg agaggaaggg gagatcaggc cgggagagaa gatggcgag 180
 gggacgctgg aggtgctgct cgtgggagcc aagggcctcg agaacaccga ctacctctgc 240
 aacatggacc cgtacgcggg tctaaaatgc acctcgagg agcaaaagag caccgtcgcc 300
 tctggaagg gaagtgatcc tgagtggaa gaaacctttg tgttcaccgt ctctgagaat 360
 gcaactgagc ttgtcatcaa gctactggac agtgatggtg gcacggacga cgacagcggt 420
 ggtgaagcaa cgatncattg gatggagtgt acactgaag 459

<210> 38
 <211> 87
 <212> PRT
 <213> Triticum aestivum

<400> 38
 Met Ala Gln Gly Thr Leu Glu Val Leu Leu Val Gly Ala Lys Gly Leu
 1 5 10 15

Glu Asn Thr Asp Tyr Leu Cys Asn Met Asp Pro Tyr Ala Val Leu Lys
 20 25 30

Cys Thr Ser Gln Glu Gln Lys Ser Thr Val Ala Ser Gly Lys Gly Ser
 35 40 45

Asp Pro Glu Trp Asn Glu Thr Phe Val Phe Thr Val Ser Glu Asn Ala
 50 55 60

Thr Glu Leu Val Ile Lys Leu Leu Asp Ser Asp Gly Gly Thr Asp Asp
 65 70 75 80

Asp Ser Val Gly Glu Ala Thr
 85

<210> 39
 <211> 417
 <212> DNA
 <213> Oryza sativa

<400> 39
 atcgtcaact cagctcctct cttttcttccc ctcccccgct cctccggag acgacccgag 60
 cccgtagcca tccatgtoga tacaaggcca gatcctogaa gtcagagtc ctgggtgcag 120
 gaagctgagg gacacggagt tcttcacggc gcaggatccc tacgtctgca tcgagtatgc 180
 caccaacaag ttccgcaccc gcacctgcac cgatggggga aggaacccta cttttgacga 240
 gaagtttcat atacctctca ttgagggggt tcgtgagcta accgtcacag tgtggaacag 300

caacacgctc acccatgatg atttcattgg caatggcagg gtgcaagctg cataagggtgc 360
 ttacgcgtgg ctatgatgat gcctcaaggg ccctccagac acgccatatg aggtctg 417

<210> 40
 <211> 83
 <212> PRT
 <213> Oryza sativa

<400> 40
 Leu Glu Val Arg Val Thr Gly Cys Arg Lys Leu Arg Asp Thr Glu Phe
 1 5 10 15
 Phe Thr Arg Gln Asp Pro Tyr Val Cys Ile Glu Tyr Ala Thr Asn Lys
 20 25 30
 Phe Arg Thr Arg Thr Cys Thr Asp Gly Gly Arg Asn Pro Thr Phe Asp
 35 40 45
 Glu Lys Phe His Ile Pro Leu Ile Glu Gly Leu Arg Glu Leu Thr Val
 50 55 60
 Thr Val Trp Asn Ser Asn Thr Leu Thr His Asp Asp Phe Ile Gly Asn
 65 70 75 80

Gly Arg Val

<210> 41
 <211> 550
 <212> DNA
 <213> Glycine max

<220>
 <221> unsure
 <222> (534)

<400> 41
 ggtgaattgc aatttcaatt aattagaatt caacgtttgc aaattgcata ttgtttottct 60
 ctctctctct tctcttgact ccattgtcgtc gataacgggc atccagggcc aacctcttga 120
 ggttacgggtg gtttcgtgct ccaagttgaa ggacacagaa tggatttcaa ggcaagatcc 180
 gtacgtttgt gttgagtatg gcagcacaac gttccgaacc agaacctgca cagacggcgg 240
 aaaaaatccg gtattccaag agaagttcat cttccccctc attgaaggcc ttcgggagct 300
 caatgtcctt gtttggaaac gcaatactct caccttggac gattttatag gaagcggaaa 360
 gattcaattg cacaagggtc tctctcaagg cttcgatgac tctgcttggc cacttcagac 420
 caaaactggc agatacgtg gtgaagtcaa agtcatattg cattacgcaa ttgcaaatca 480
 tcaaaggcat aaatcagtg caagccatgc tccatcaaca cctccgtatg tggnaacaac 540
 aactcctccc 550

<210> 43
 <211> 424
 <212> DNA
 <213> Zea mays

<220>
 <221> unsure
 <222> (169)..(170)

<220>
 <221> unsure
 <222> (172)..(173)

<220>
 <221> unsure
 <222> (178)..(179)..(180)

<220>
 <221> unsure
 <222> (183)

<400> 43
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 cgccacctgg aggagaggac agcgcgccag ggagggggag gaggaagaag aacatgggga 120
 agggcgctcct gaaggtgcac ctcgtegacg ccaaggggct ctccggcann gnnttctnnn 180
 ggnagctgga cccctacgtg atcatgcagt accggagcca ggagcgcaag agcagcgctcg 240
 cccgagacca aggaaggaac ccgtgctgga acgaggtgtt caagttccag atcaactcgg 300
 ccgcggccaa cgtgcagcac aagctcatcc tccggatcat ggaccacgac aacttctcca 360
 gcgacgactt ctgggcgagg cgacgatoga cgtgacggac atcgtcagcc tgggcgccga 420
 gcgc 424

<210> 44
 <211> 85
 <212> PRT
 <213> Zea mays

<220>
 <221> UNSURE
 <222> (18)..(19)

<220>
 <221> UNSURE
 <222> (21)..(22)..(23)

<400> 44
 Gly Lys Gly Val Leu Lys Val His Leu Val Asp Ala Lys Gly Leu Ser
 1 5 10 15
 Gly Xaa Xaa Phe Xaa Xaa Xaa Leu Asp Pro Tyr Val Ile Met Gln Tyr
 20 25 30
 Arg Ser Gln Glu Arg Lys Ser Ser Val Ala Arg Asp Gln Gly Arg Asn
 35 40 45
 Pro Cys Trp Asn Glu Val Phe Lys Phe Gln Ile Asn Ser Ala Ala Ala
 50 55 60
 Asn Val Gln His Lys Leu Ile Leu Arg Ile Met Asp His Asp Asn Phe
 65 70 75 80
 Ser Ser Asp Asp Phe
 85

<210> 45
 <211> 548
 <212> DNA
 <213> Glycine max

<220>
 <221> unsure
 <222> (291)

<220>
 <221> unsure
 <222> (349)

<220>
 <221> unsure
 <222> (417)

<220>
 <221> unsure
 <222> (437)

<220>
 <221> unsure
 <222> (446)

<220>
 <221> unsure
 <222> (486)

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 <222> (492)

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 <221> unsure
 <222> (506)

<220>
 <221> unsure
 <222> (525)

<220>
 <221> unsure
 <222> (528)

<220>
 <221> unsure
 <222> (544)

<400> 45
 ttaaattgta agaattttgc tgactttgtaa gcttcagaga cgaagacaca cggtttagagt 60
 gagaaagaga tggcaattgg gttcatggag gtgcagcttg tgaaagcaaa ggagtttgtgt 120
 gacactgatt tctttggttag tatggaccgg tatgtttgtga tacaatacaa cggccaagag 180
 caaaggagta gtgttgctaa gggacagggc aataatccgg tatggaatga gaaatttgtg 240
 ttcaaggtag aatatacctac actgagtaat tcatacaaga ttatctttaa natcatggac 300
 aaggatcttt tatctgcaga tgactttggtt ggtcaagcca tagtcctang tgggaagatt 360
 tattagccat aaggggtaga ggatgggtgcc ggctgagcta caacctccta aagtacnaga 420
 gtaattccgt gcagatnaat cttantggg ggagaaattg atcttgggat aactttttaa 480
 gggggnaaga angagttcaa tggagnaago ctaaaccaag gatcnaangg acagtaaatt 540
 agtnnttc 548

<210> 46
 <211> 89
 <212> PRT
 <213> Glycine max

<220>
 <221> UNSURE
 <222> (71)

<400> 46
 Gly Phe Met Glu Val Gln Leu Val Lys Ala Lys Glu Leu Cys Asp Thr
 1 5 10 15
 Asp Phe Phe Gly Ser Met Asp Pro Tyr Val Val Ile Gln Tyr Asn Gly
 20 25 30
 Gln Glu Gln Arg Ser Ser Val Ala Lys Gly Gln Gly Asn Asn Pro Val
 35 40 45
 Trp Asn Glu Lys Phe Val Phe Lys Val Glu Tyr Pro Thr Leu Ser Asn
 50 55 60
 Ser Tyr Lys Ile Ile Leu Xaa Ile Met Asp Lys Asp Leu Leu Ser Ala
 65 70 75 80
 Asp Asp Phe Val Gly Gln Ala Ile Val
 85

<210> 47
 <211> 473
 <212> DNA
 <213> Triticum aestivum

<220>
 <221> unsure
 <222> (296)

<220>
 <221> unsure
 <222> (473)

<400> 47
 tccaaacgcg acctcatcag agcaagaccc ggaggaaaca aggagaggcc agagcggcct 60
 gtcacaaggc aaggacagag gaggtgcttg ttcaggtctc ctgctagatc cggaggcgat 120
 gggcaggggc tgctggaggt gcatctogtc gacgccaagg gcctcttcgg cagcgatttc 180
 ctaggaagat cgaccggtat gtaatcgtgc aataccggag ccaggagcgc aagagcagca 240
 ctccagagat gaggggagga acccgagctg gaacgaggtg ttccgggttc agatcnctcc 300
 tctgcgggcca acgggcagca caagctcttc ctccggatca tggaccaoga catcttctcc 360
 agcgacgact tcctcggcca agcgacgata aacgtgaccg atctgatcag accggcatgg 420
 agaagcgggc gcgtcgcagc tgaacgcggc aaagtacaac gttgttgtcc gcn 473

<210> 48
 <211> 99
 <212> PRT
 <213> Triticum aestivum

<220>
 <221> UNSURE
 <222> (24)

<220>
 <221> UNSURE
 <222> (47)

<220>
 <221> UNSURE
 <222> (62)

<400> 48

Gly Gln Gly Leu Leu Glu Val His Leu Val Asp Ala Lys Gly Leu Phe
1 5 10 15

Gly Ser Asp Phe Leu Gly Arg Xaa Asp Pro Tyr Val Ile Val Gln Tyr
20 25 30

Arg Ser Gln Glu Arg Lys Ser Ser Thr Pro Glu Met Arg Gly Xaa Gly
35 40 45

Glu Glu Pro Glu Leu Glu Arg Gly Val Pro Val Pro Asp Xaa Ser Ser
50 55 60

Ala Ala Asn Gly Gln His Lys Leu Phe Leu Arg Ile Met Asp His Asp
65 70 75 80

Ile Phe Ser Ser Asp Asp Phe Leu Gly Gln Ala Thr Ile Asn Val Thr
85 90 95

Asp Leu Ile

<210> 49

<211> 465

<212> DNA

<213> Oryza sativa

<400> 49

aaagatcacc caaaacccta tattccatag ttgagacaca agattttttg aagccaagtt 60
tgcgcatcac atcaaagggt tcttttgatg cgaccaatgc tgtgaagagt gtaactagca 120
gtatctctag cgcttcaggg aagcatgtcg ctgacgatac aagagaattt gttggagagc 180
tgaacattac agtggttaaga ggtattcaag ttggccgtca gagacatgct aacgagcgat 240
ccatatgttg ttctaacact tggggagcag aaagctcaaa ccaactgttaa accgagtgac 300
ttgaaccag tatggaatga ggtgottaag atatcaattc ctcgaaatta tggacctott 360
aaacttgaag tatacgacca tgatacgttc tctgctgatg atatcatggg ggaagcggag 420
atagatcttc aaccaatgat cacagccgtc atggcctttg gagaa 465

<210> 50

<211> 31

<212> PRT

<213> Oryza sativa

<400> 50

Val Val Leu Thr Leu Gly Glu Gln Lys Ala Gln Thr Thr Val Lys Pro
1 5 10 15

Ser Asp Leu Asn Pro Val Trp Asn Glu Val Leu Lys Ile Ser Ile
20 25 30

<210> 51

<211> 390

<212> DNA

<213> Oryza sativa

<220>

<221> unsure

<222> (43)

<220>
<221> unsure
<222> (204)

<220>
<221> unsure
<222> (301)

<220>
<221> unsure
<222> (347)

<220>
<221> unsure
<222> (373)

<400> 51
gcctgtgcaa catcatcatc aagaagaaga agagatcaac ggnaagaaga ctagcgacta 60
gcgagagatc gatcgaagag aagaggagag atggtgcacg ggaagctgga ggtcctcctc 120
gtctgcgcca agggcctcga ggacactgac ttcttgaacg acatggaccc ctacgtgac 180
ctcacctgcc gcactcagga gcangaaaag cagcgttgca aaaggagcag gaagcgagcc 240
tgaatggaac gagaccttcg tcttcaccgt ctccgaogat gttccacagc tcaatgtcaa 300
ngatcatgga caagtgatgg ccttctcaag ctgacgattt cggtcnnggt gaagcaaaca 360
attcctctgg gangcctgtg ttctgaggaa 390

<210> 52
<211> 69
<212> PRT
<213> Oryza sativa

<400> 52
Met Val His Gly Lys Leu Glu Val Leu Leu Val Cys Ala Lys Gly Leu
1 5 10 15
Glu Asp Thr Asp Phe Leu Asn Asp Met Asp Pro Tyr Val Ile Leu Thr
20 25 30
Cys Arg Thr Gln Glu Gln Lys Ser Ser Val Ala Lys Gly Ala Gly Ser
35 40 45
Glu Pro Glu Trp Asn Glu Thr Phe Val Phe Thr Val Ser Asp Asp Val
50 55 60
Pro Gln Leu Asn Val
65

<210> 53
<211> 489
<212> DNA
<213> Glycine max

<220>
<221> unsure
<222> (417)

<220>
<221> unsure
<222> (428)

<220>
 <221> unsure
 <222> (452)

<220>
 <221> unsure
 <222> (482)

<400> 53
 agaaagaaaa aagtggatcc agccaaattc cagctccaat ttgtaactca ctgcttcagg 60
 catttctggc acaatttttt ccacctttat ttcaacttta agactccaca gaaagaagca 120
 tattcctgag tcaaatagtt ctgtccatat agaatttggt aagtgagagt ccaacctttc 180
 attttcaatt ttcaaagatg cctogtggaa cacttgaagt tgttctgata agcgccaaag 240
 gaatcgatga caatgatttt ctctccagca tagatcctta tgtgattctc acatacaggg 300
 cacaggagaa aaagagcact gtgcaagaaa gatgctggat ccaagccaca atggaatgag 360
 agctttcttt tcaactgtctc tgacagtgtc tctgaactta atctgaagat aatgggntaa 420
 agacaacntt agtcaaagat ggttggcctg gngaggggaa caatcaatta gattcaagtg 480
 gnttggagg 489

<210> 54
 <211> 42
 <212> PRT
 <213> Glycine max

<400> 54
 Met Pro Arg Gly Thr Leu Glu Val Val Leu Ile Ser Ala Lys Gly Ile
 1 5 10 15

Asp Asp Asn Asp Phe Leu Ser Ser Ile Asp Pro Tyr Val Ile Leu Thr
 20 25 30

Tyr Arg Ala Gln Glu Lys Lys Ser Thr Val
 35 40

<210> 55
 <211> 523
 <212> DNA
 <213> Triticum aestivum

<220>
 <221> unsure
 <222> (401)

<220>
 <221> unsure
 <222> (407)

<220>
 <221> unsure
 <222> (449)

<220>
 <221> unsure
 <222> (456)..(457)

<220>
 <221> unsure
 <222> (493)

<220>
 <221> unsure
 <222> (497)

<220>
 <221> unsure
 <222> (512)

<400> 55
 gagagatcca agactaggcc ggccggccgg aggagatcga gaaggaggag gagacatggt 60
 gcgcgggaag ctggaggtgc tgctcgtctc cgccaagggc ctcgacgact ccgatttctt 120
 caatagcatg gacccgtaag tgatcctcac ctgccgcagc cacgagcaga agagcacagt 180
 cgcatacagga gcagggagcg agcctgagtg gaacgagacc ttctgtcttcg ccgtctccgg 240
 cgacgctccg gagctcaggg tcaagatcat ggacagcgac gccctctcgg ccgacgacct 300
 cgtcggagaa gcatgtatcc cgctggaggc tgtgctccag gagggcagcc tgccgcgggc 360
 cgtgcaccgg gtctcaagga cgaggagtac cgcggggaat naagatngcg ctcaattcac 420
 ccggcagagg aaaacaggag gaggaggana ctacgnnggt ggatcatcac tgaaaaggca 480
 cgagcacaaa tgngttnttt acgtaaaagg anaaaggttt gat 523

<210> 56
 <211> 28
 <212> PRT
 <213> Triticum aestivum

<400> 56
 Met Val His Gly Lys Leu Glu Val Leu Leu Val Ser Ala Lys Gly Leu
 1 5 10 15

Glu Asp Thr Asp Phe Leu Asn Asn Met Asp Pro Phe
 20 25